DOCUMENT RESUME

ED 088 170 EA 005 902

TITLE	Managing for Student Needs: A Student Centered Management Information System. Final Report.
INSTITUTION	Azusa Pacific Coll., Azusa, Calif.
SPONS AGENCY	EXXON Education Foundation, New York, N.Y.
PUB DATE	Jan 74
NOTE	30p.
EDRS PRICE	MF-$0.75 HC-$1.85
DESCRIPTORS	Computer Oriented Programs; Data Bases; Electronic Data Processing; *Higher Education; Information Needs; *Information Systems; Information Utilization; Management Information Systems; *Personnel Data; Student Interests; *Student Needs; Systems Approach; *Systems Development
IDENTIFIERS	Azusa Pacific College; SCMIS; *Student Centered Management Information System

ABSTRACT

This volume represents a nontechnical description of the process of developing the Student Centered Management Information System (SCMIS) for Azusa Pacific College. The SCMIS utilized student-generated input to provide information pertaining to new students, student social interests, and student academic activities. It also reports on survey results regarding such factors as campus morale, professors, resident life experiences, and religious experiences. Additionally, one subsystem models direct instructional costs such as instructors' salaries, support staff wages, departmental supplies, and equipment costs. The SCMIS is designed to operate on an IBM System/3 computer with two disk drives. (Pages 22-26 may reproduce poorly.) (Author)

9

ED 088170

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

MANAGING FOR STUDENT NEEDS:

A STUDENT CENTERED MANAGEMENT INFORMATION SYSTEM

FINAL REPORT

January, 1974

Stanley M. Frame, Ed.D.

Project Director

AZUSA PACIFIC COLLEGE

Highway 66 at Citrus

Azusa, California 91702

EA 005 902

The project reported herein was funded by
a grant from the EXXON Education Foundation
Resource Allocation Management Program

ABSTRACT

This report is one of two volumes documenting a project funded by the EXXON Education Foundation Resource Allocation Management Program. This volume presents a non-technical description of the process of developing the Student Centered Management Information System (SCMIS), what it is, what it does, and how it is used. The technical volume presents a description of system data base structure, system logic, program documentation, and sample reports.

The SCMIS utilizes student generated input to provide information pertaining to new students, student social interests, and student academic activities. It also reports on survey results regarding such factors as campus morale, professors, resident life experiences, and religious experiences. Additionally, one subsystem (RRPM/APC) is a re-programmed version of the NCHEMS product RRPM 1.6, which models direct instructional costs such as instructors' salaries, support staff wages, departmental supplies, and equipment costs.

The SCMIS is designed to operate on an IBM System/3 computer with two disk drives.

ACKNOWLEDGEMENTS

A project of this nature and magnitude is always the product of a team effort. Certainly, the EXXON Education Foundation deserves the credit for seeing the challenge and the potential of the project and for making it all possible through the awarding of the grant.

The vision and conceptualization is largely the responsibility of the Systems Analyst, Gregory Markovich. Paul McGough, Senior Programmer, with the aid of three student programmers, Robert McGough, Margie Abel, and Robert Claiborne, operationalized the concepts.

Students, faculty, staff, administrators, and board of trustee members at Azusa Pacific College deserve commendation for their complete support and encouragement. The secretary and typist who maintained minutes of countless meetings and typed and re-typed manuscripts was Janell Hope.

Genuine respect and appreciation must be accorded the consultant firm, Systems Research, Inc., and the three persons who worked with the College - James Farmer, Colby Springer, and Tallman Trask.

Finally, although other persons and organizations were involved in the project, the contents of this report are the responsibility of the author.

TABLE OF CONTENTS

Abstract i

Acknowledgements ii

I. Introduction and Project Background 1

II. Development of the SCMIS 2

III. System Overview 7

IV. Data Preparation 9

V. System Reports 11

VI. Implications and Conclusions 13

VII. Appendices 14

A. Communiversity Index 15

B. Summary Points of Criteria for Item Inclusion 16

C. Sample Items From ASB Instrument 19

D. Sample of SCMIS Reports 22

I. INTRODUCTION AND PROJECT BACKGROUND

It is well recognized that colleges and universities across the nation are involved in a transitional period, brought about by reversals of upward trends in enrollment, facilities expansion, and program proliferation. Caught in the squeeze of shifting forces in these social, political, and economic environments, many institutions are searching for solutions to basic problems of survival.

Economic survival seems to come into sharpest focus on the small college campus. Frequently, larger institutions have advanced management technology, supported by sophisticated computer hardware which, while not guaranteeing utopian answers, certainly does provide for wider consideration of alternatives based on objective data. Azusa Pacific College has taken a significant step toward applying advanced systems technology and simultaneously capitalizing on the strenghts inherent in the nature of a small college.

The project described in this report was designed to:

1. contribute to more efficient resource management by making available computer-supported software systems which model significant institutional processes;

2. operationalize institutional commitments regarding the worth and dignity of its students - the need to hear and respond to student needs and interests;

3. demonstrate that, given minimal support, small colleges can select and utilize tools and talent to achieve significant institutional objectives; and

4. provide for the public domain an easily duplicated management system which can be implemented on a low-cost computer.

Funding for this project was provided by the EXXON Education Foundation Resource Allocation Management Program. A demonstration grant of $48,400 was awarded Azusa Pacific College (APC) to create a Student Management Information System (SCMIS) appropriate to a small college.

Clearly, this one-year effort could not have been accomplished without this significant commitment by the Foundation.

Submission of the proposal was preceded by:

1. The creation of the Task Force on Institutional Research at APC in July, 1971. The first priorities of that group were to develop an overall Management Information System; to identify, develop and collect essential data bases; and to develop or adapt appropriate simulation models.

2. The attendance of three institutional representatives at the Western Interstate Commission on Higher Education (WICHE) meetings in Boulder and Denver, Colorado in January, 1972. It was at these workshops and forums that the possibilities and the state of the art regarding the application of Management Information Systems to small colleges was considered.

3. The implementation of the Cost Estimation Model (CEM) in the spring of 1972 gained Azusa Pacific College the distinction of being the first institution of its type and size to successfully implement the CEM. Although operational only on a rather large computer, this model did provide sound costing data on which curricular and staffing decisions could be made.

II. DEVELOPMENT OF THE SCMIS

Several themes were identified as crucial to the achievement of the project goals. Throughout the work effort, the project staff was mindful of the need to maintain a broad base of institutional involvement and commitment. From the first orientation session and through the bi-weekly progress meetings, representatives of the following departments were

actively involved: Admissions, Registrar, Student Services, Student Development, Business Office, Graduate Studies, along with special consultants from Systems Research, Inc.

An assessment of current and anticipated report needs was completed. Guidelines for report generation were established and concerns of confidentiality of data as well as control of accessibility were addressed.

A SCMIS policy/control committee was formed including five students, five faculty/staff members, and a non-voting faculty chairman. By title, the non-students were: Dean of Graduate Studies (chairman), Associate Dean of Students, Director of the Campus Center, Director of the Resource Center, Dean of Instruction, and Admissions Counselor. Student members were: Student Body President, Student Services Business Manager, Peer Counselor, Student Services Graduate Intern, and one student selected at large by the student body officers.

Considerable attention was devoted to identifying the elements of the student body data base. The creation of the data base, and to a significant extent, the development of this project was preceded by a recognized frustration on the part of those divisions of the college most directly associated with students and student services. These points of identification were:

1. The dissonance created by mismatch between student development programs and services, and the students' needs.

2. The inarticulated student opinions regarding areas of concern within the College community which were sensed yet seldom clarified.

3. The obviously existent but unclassified student interests concerning activities, programs and services.

It became apparent after much discussion between students and staff members of the Student Development Department, that the main source of this frustration was the lack of student - centered data concerning their

interests, opinions, and needs. It was further discovered that as long as programs, activities, and services continued to be built on assumed interests, opinions and needs, the College was in danger of not only wasting and misusing dollars and professional time, but making valid the complaint of irrelevant responses to the students.

Therefore, a commitment was made to attempt to construct a means of gathering relevant data so that actual existing needs of students could be met.

The Communiversity Index instrument was the first of this data collection effort. It was intended to be a very simplified and generalized tool that would identify a pattern of student interests and priorities to be used as a basis for the formation of a new student activity program called the Communiversity. The items selected for inclusion were based upon interests that had been randomly suggested by students at various times over the previous three years. They were compiled into existing form (See Appendix A) by a committee composed of the Director of Student Activities, two graduate interns of the Master of Arts in Student Developmental Services program, and the Administrative Council of the Associated Student Body (nine members, including the Student Body President). Once the instrument was composed, it was mailed to the entire student body. Response was expedited by inclusion of return postage.

For some time the individuals charged with the responsibility of administering and overseeing student life had been quite interested in documenting the feelings and opinions of students and comparing them to their own perceptions of what the students felt as well as to what the College was reporting about itself through the channels of public relations, admissions, and fund raising. These concerns, as well as the desire to

establish data for comparative reference in succeeding years, resulted in what was called the Associated Student Body (ASB) instrument.

The working committee that constructed the ASB instrument consisted of the Dean of Students, an Admissions counselor, the Director of Student Activities, and the Dean of Graduate Studies. This group, with assistance from some of the student body leaders, took on the task of selecting relevant items that would provide useful opinions, feelings, and information of the existing student body, and serve as points of comparison for future years.

Starting with a consultant-prepared "Working Document for an ASB Data File", the committee reviewed criteria for item inclusion. (The summary points are presented in Appendix B). Then using the University of California-Los Angeles Higher Education Measurement and Evaluation Kit scales, (a series of survey questions on a variety of student-related areas of concern prepared by the staff of the Higher Education Department) as the types of items that could be used, the committee began to narrow its focus to certain areas. The task became one of selecting a number of single items which were considered appropriate to Azusa Pacific. These selected items, added to ones created by the above working committee, would form the ASB survey instrument.

The areas finally decided upon were: (1) feelings about other people, (2) feelings about the future, (3) styles of learning, (4) religion, (5) campus morale, (6) geographic background, (7) professors, (8) study habits, (9) variety of instructional and learning experiences, (10) educational priorities, and (11) areas and agents of change during the college experience.

Each of the above areas was developed because of an identifiable interest on the part of the committee. In each area items were selected that were as relevant as possible to the specific student body tested. (Sample items from the ASB instrument are presented in Appendix C).

There were two main groups identified for initial response collection. First, all new students were given the opportunity to respond to the instrument, and were instructed to answer on the basis of anticipations or expectations brought to mind by the specific items (excluding the educational, family and geographic backgrounds). Since this was an identifiable group, it was intended that they be retested later so that a comparison between preconceptions and actual experience could be highlighted.

The second group tested was a random sampling of the returning students. This sampling was meant to provide not only current relevant information, but the beginning of a data base which could be used for comparison in succeeding years.

Concurrent with the efforts which identified the student body data base elements and appropriate instrumentation, a significant amount of energy was expended toward securing adequate costing information. A variety of cost predictive computer models was reviewed. The selection process was guided by the need to have a model that would:

1. Be adaptable to a small college.
2. Function on a small computer, or be reprogrammed to do so.
3. Utilize rather standard data elements, especially in financial data.
4. Be inexpensively obtained.

The Resource Requirement Prediction Model (RRPM 1.6) developed by the National Center for Higher Education Management Systems (NCHEMS) at

WICHE was selected. The College had prior experience in utilizing the Cost Estimation Model (CEM), a forerunner of RRPM 1.6. This experience proved valuable in adapting the RRPM 1.6 to a 32K System/3 computer. Additionally, consultive assistance was available from persons involved in the development and implementation of this model.

Program validation was accomplished in three stages. Basic scoring programs which create and utilize data bases derived from local forms were compared to a hand tabulated sample. Admission, registration, and student survey data were of this nature.

Reprogramming of the RRPM 1.6 (then dubbed RRPM/APC) to run on the smaller machine was validated on NCHEMS-supplied MICRO-U synthetic data and compared to identical reports run on the original version of RRPM 1.6 on a larger IBM 360/50.

Finally, localized costing data were run on RRPM 1.6 (on an IBM 360/50) and with RRPM/APC (on an IBM System/3) and the reports compared.

III. SYSTEM OVERVIEW

The Student Centered Management Information System (SCMIS) utilizes student generated input to provide management reports. It is designed to provide students, student leaders, faculty, administrators, and board of trustee members information pertaining to new students, student social interests, and student academic activities (course enrollments, etc.). It also reports survey results regarding such factors as campus morale, professors, resident life experiences, religious experiences, etc. The system assists all concerned in responding to student needs with academic, vocational, social, and experimental programs.

One subsystem, RRPM/APC, models direct instructional costs such as faculty salaries, support staff wages, departmental supplies, and equipment costs.

The SCMIS is designed to operate on an IBM System/3 computer with two disk drives. Excepting the RRPM/APC subsystem, programs are written in RPG II and are operated on a 16K machine. RRPM/APC is programmed in ANSI-Cobol and requires a 32K storage capacity machine.

There are six subsystems, or modules, each capable of independent operation. This permits user-determined frequency of utilization of a given segment of the SCMIS.

1. Admissions-Recruiting (Computer Assisted Recruiting Efforts-CARE)

This module utilizes a file of the characteristics of prospective new students to generate statistics and rosters of new students by sex, class, and major. CARE data are used in survey data collection, in the ACT module, and as an input to the RRPM/APC and the ICM.

2. American College Testing (ACT)

This module, utilizing institutionally available reports from the ACT survey, generates statistics and rosters on "Interest Areas" and "Needs Improvement" areas. ACT interfaces with SDC for report generation. Some data is available to RRPM/APC and ICM.

3. Registration (REG)

This module utilizes student registration forms and class cards to produce over-all statistics and rosters by sex, class and major. Unit load and teaching load statistics are generated. REG interfaces with RRPM/APC and ICM.

4. Survey Data Collection (SDC)

This module accomplishes input and scoring of institutionally generated survey instruments. Accepted question forms include multiple choice, true-false, ranking 1-3, ranking 1-4, ranking 1-5, and response with satisfaction-level ranking.

It permits random retrieval of questions and retains student-response relations. The module also possesses a keyword random retrieval capability allowing the user to search survey data by interest area.

Statistical and roster reports are generated with capabilities of identifying over 1,000 combinations of student-respondent characteristics. Over 250 survey items have been adopted from previously used instruments.

This module interfaces with RRPM/APC and ICM.

5. RRPM/APC

This module calculates program cost information and implied resource requirements to undertake a given series of programs. It provides organization reports, program budget and planning reports, parameter reports, and summary reports.

Internal interface with REG permits machine calculation of the Induced Course Load Matrix (ICLM) and faculty productivity ratios based on current data. Additionally, interface with SDC is fed into the ICM for its utilization, thus saving the modularized calculations of the RRPM/APC for user manipulation on the smaller (16K) machine.

6. Institutional Cost Model (ICM)

This module accepts input from CARE, ACT, REG, SDC and RRPM/APC to provide reports of cost information on small programs, and/or projects designed in response to measured student needs. It also provides historic data on efforts to satisfy student needs.

IV. DATA PREPARATION

The SCMIS has been designed to accept two very general data input formats and two formats which are of a specified nature. Three institutional forms relating to the admission and course registration function (new student

application forms, course registration forms, and class schedules) are the vehicles for data inputs:

- high school grade point average
- college grade point average
- church denomination
- major
- county, home residence
- age
- sex
- social security number
- course scheduled location
- course value (semester units)

Survey data instruments of two types are also of general input format. The student interests survey (called the Communiversity Index) relating to such areas as outdoor recreation, intramurals, and cultural arts, is administered on a sample basis. Normally an instrument of this nature is utilized without reference to more traditional academic terms (semester, quarter) since it is an index of student interests in activities as compared to their commitments to longer term programs.

Additionally, it is expected that these activities, developed in response to interests so expressed, will be of a short term nature. Students may express an interest in intramural sport and would participate, but not for several months nor if the activities are delayed several months after the expression of interest (survey data).

The second survey data instrument of general format is called the ASB survey and contains 121 items grouped under eleven scales plus six classifying dimensions. The six dimensions are: (1) educational level of parents; (2) the number of books in the parents' home (as an additional estimator of socioeconomic status); (3) the percentage of the student's high school class that went to college; (4) the size of the community in which the student grew up; (5) in how many different parts of the country the student has lived; and (6) the amount of time spent outside the United States.

The two sets of data collection forms that are specific in nature are the ACT data reports and the various coding forms necessary for the

RRPM/APC. ACT forms on prospective and new students supply 53 distinct items of information relating to the student, his high school record, interests and plans.

The most specific data input preparation process is related to the RRPM/APC. Since this module is a modularized reprogrammed version of the RRPM 1.6, the reader and user is referred to the NCHEMS-prepared technical documents # 39A and 39B.

V. SYSTEM REPORTS

There is extremely wide variation in the type of reports produced by the SCMIS. A group of 26 reports is classified as "Basic Recurring Reports" and is routed primarily to the Admissions, Registrar, and Student Development Offices for utilization or transmittal. Included in this category are such reports as:

- Roster of individual student applicants for admission showing current status & all basic data from application file
- Roster by major of applicants for admission
- Roster by California county of applicants
- Roster of majors for all students, by class year and sex
- Current student major roster
- General enrollment statistics
- Statistics by ethnic group/current students
- Roster of individual student academic load
- Roster of students on cumulative file, with total Cum information (GPA)
- Class rosters with/without grades

These are data required of most college operations and the reports are fairly self-explanatory.

From ACT data, the system also furnishes rosters by name, student number, and campus box number, of all students indicating special interests

or needs (i.e. "needing assistance in choosing a major" ... "needing assistance in improving mathematical skills" ... "interested in writing and publication" ... "interested in campus political groups" ...).

These reports are useful in identifying trends and in matching talents and interests.

The Communiversity Index data are supplied in two report formats. One presents a statistical summary of interest level of students interested in various categories of activities (experimental classes, outdoor recreation, intramurals, and cultural arts). Additionally, the system supplies rosters of students by interest level who indicated responses to the above categories.

The ASB survey instruments are the primary source documents for a large and flexible data base. Standard reports list by scale, the question or item, the tabulation by type of response, and where appropriate, the mean response level.

Additionally, the system possesses the capability of responding to user requests for special reports of tabulations to questions relating to key areas or questions selected randomly. The user can identify any combinations of the questions on file and query the system to learn the answer supplied by user-identified subgroups (i.e. male freshmen, or all undergraduate history majors, or seniors living in dorm X who have an auto on campus).

Detailed descriptions of the RRPM/APC reports are presented in the technical documents cited in section IV. The adaptation of RRPM 1.6 has included reprogramming the report-generating Program 6 to suppress printing of salary data and clearly related cost column data. This permits wide distribution of the 31 page reports while protecting faculty in small departments who may not want full salary disclosure.

Samples of all system reports are presented in Appendix D.

VI. IMPLICATIONS AND CONCLUSIONS

Throughout the work effort, project staff were repeatedly reminded of a concomitant value of this type of endeavor. Quite aside from the benefits inherent in the end product were the lessons and insights derived from participation in the process.

Quantifying these types of data certainly forced the institution to ask and re-ask basic questions:

- "Is this what we are really doing?"
- "Is this what we should be doing?"
- "Of what value will this information be?"
- "What are the cost/benefit implications?"

Successful completion of the project carries with it certain implications and conclusions:

1. Given minimal financial support, small colleges can assemble the necessary talent and tools to significantly contribute to the advancement of the state of the art.

2. Sophisticated computerized hardware/software systems can be effectively adapted to the needs and resources of small colleges.

3. An attitude of listening to the student can be enhanced through appropriate computerized systems.

4. The end result of this effort is the creation of a tool - not an answer.

VII. APPENDICES

A. Communiversity Index

B. Summary Points of Criteria for Item Inclusion

C. Sample Items From the ASB Instrument

D. Sample of SCMIS Reports

..what our PROSPECTS are..

for the EXPERIMENTAL COLLEGE

. . . WHICH WILL PROVIDE NON-CREDIT CLASSES IN SPECIAL INTEREST AREAS. THE CLASSES WILL BE PROVIDED AT NO EXTRA COST TO THE STUDENT, EXCEPT FOR SUPPLIES. THEY WILL BE TAUGHT BY ANY INTERESTED FACULTY, STAFF, STUDENT, OR SELECTED OUTSIDE PERSON.

01 Photography
02 Auto Tune-Up
03 Red Cross First Aid
04 International Cooking
06 Decoupage
07 Gourmet Cooking
08 History/Origin of APC
09 Minorities Study Series
10 Karate
11 Candle-Making
12 Christianity, Witchcraft, The Occult
13 Other: *(Write in suggestion on Questionnaire.)*

for CULTURAL ARTS

. . . WHICH WOULD BRING ART EXHIBITS, MUSIC, LECTURE, AND ARTIST SERIES TO THE CAMPUS.

01 Art Shows, Displays
02 Student Talent Shows
03 Drama Workshop/Plays
04 Student Art, Photo Shows
05 Lecture Series
06 Operas
07 Concerts
08 Rock Concert
09 Folk Concert
10 Classical
11 Spiritual Concert
12 Legitimate Theater
13 Other: *(Write in suggestion on Questionnaire.)*

for INTRAMURALS

. . . WHICH WOULD BE RUN BY THE COMMUNIVERSITY IN COOPERATION WITH THE ASSOCIATED STUDENT BODY.

01 Flag Football (Male) 10 weeks
02 Powder Puff Football 4 weeks
03 Horseshoes, M/F, doubles
04 Badminton, Singles/Dbls/Mixed
05 Chess
06 Volleyball 6,4,3-man, Mixed
07 Table Tennis, Sing/Db/Mixed
08 Mushball, Mixed only
09 Billiards, Sing/Db/Mixed
10 Other: *(Write in suggestion on Questionnaire.)*

for OUTDOOR RECREATION

. . . WHICH WOULD OFFER CENTRAL LEADERSHIP & ORGANIZATION FOR ALL PROGRAMS. EQUIPMENT WILL BE RENTED OUT TO THE STUDENTS FOR AN INEXPENSIVE FEE.

01 Horseback Riding
02 Bowling
03 Camping
04 Beach Trip
05 Deep Sea Fishing
06 Bike Trip
07 3-Day Canoe Trip, Colorado
08 Snow Skiing, Novice/Advanced
09 Backpacking
10 Mexico Trip — Tijuana
11 Disneyland/Knott's Berry Farm
12 Local Trout Fishing
13 Other: *(Write in suggestion on Questionnaire.)*

QUESTIONNAIRE!!

By completing this questionnaire, you will assist the COMMUNIVERSITY STAFF in developing the MOST SATISFYING COLLEGE EXPERIENCE FOR YOU. Please record your responses by tearing off the mail back card and marking your responses.

Please indicate your level of participation for each area by using this scale.

5 strongly interested
4 interested
3 undecided
2 disinterested
1 strongly disinterested

EXPERIMENTAL COLLEGE CLASSES

____ 01 ____ 02 ____ 03 ____ 04
____ 05 ____ 06 ____ 07 ____ 08
____ 09 ____ 10 ____ 11 ____ 12
_____ 13

CULTURAL ARTS

____ 01 ____ 02 ____ 03 ____ 04
____ 05 ____ 06 ____ 07 ____ 08
____ 09 ____ 10 ____ 11 ____ 12
_____ 13

INTRAMURALS

____ 01 ____ 02 ____ 03 ____ 04
____ 05 ____ 06 ____ 07 ____ 08
____ 09 _____ 10

OUTDOOR RECREATION

____ 01 ____ 02 ____ 03 ____ 04
____ 05 ____ 06 ____ 07 ____ 08
____ 09 ____ 10 ____ 11 ____ 12
_____ 13

NAME: _____
ON CAMPUS ☐ OFF CAMPUS ☐
LIVING AREA: _____
APC BOX NUMBER: _____
SOCIAL SECURITY NUMBER: _____
MALE ☐ FEMALE ☐
FRESHMAN ☐ SOPHOMORE ☐
JUNIOR ☐ SENIOR ☐ GRAD. STUDENT ☐

SEND ANSWER TODAY

APPENDIX B

CRITERIA FOR ITEM INCLUSION

There are essentially six criteria relevant to the decision to include an item in the ASB data bank. Each potential item, as it is considered for inclusion, should be analyzed along these parameters:

1. FREQUENCY

Can the item be administered to a student once, and then be assumed as constant over time, or must the item be repeated?

Is the item of interest in a longitudinal study framework, to map changes in students over time?

If either of these conditions apply, how often must the item be administered to be of value and validity?

2. SCALE SCORING REQUIREMENTS

Is the individual item a member of a cohesive scale, or does it stand alone?

Is the cost savings resultant from smaller storage requirements for aggregated scales enough to offset the necessity of continuing the item over time in an effort to maintain the integrity of the scale?

(For purposes of data manipulation, it is probably easier to work with scale scores. But aggregation may entice the institution to give up important data which may be contained only in a single item. It is perhaps preferable to initially store data on a single item basis, until statistical evidence documents that little is lost by inclusion of an item into scale scoring.)

3. COMPARABILITY/COMPARISON

Is national test data available on the item to provide comparative norms, or must such norms be self-generated through repeated administration of the item on-site?

Is the comparative data updated annually, or is it based in a single historical testing?

Is national data aggregated in a format which allows identification of colleges and students which can be reasonably compared on other dimensions to Azusa Pacific?

4. SAMPLE SIZE METHODOLOGY

Must the item be asked of all students (once or repeatedly), or is it a representation of general campus sentiment, which can be drawn from a well chosen sample?

How large must the sample be to be reliable, and to insure that the item is not measuring only the feelings of a unique sub-group of students?

5. OPERATIONALITY

Does the item represent a particular fact to which the institution can respond, or does it only provide "general feelings," which cannot be affected by an institutional action?

Is it likely that the college can modify item responses by undertaking some particular effort?

6. COST

Does the item require any monetary expense in its acquisition and collection, and if so, how much?

Is the cost borne by individual students (as are ACT tests), or by the institution?

Is the expense incurred once, when the instrument is acquired, or does it recur each time the item is used?

Is the institution willing to commit the resources necessary to obtain data from this item over a period of years?

The summary judgment about an item, which must be made before it is inserted into the data bank, is whether or not the value of a piece of information exceeds the cost of the effort required to obtain (and maintain) it. If so, the item has operational utility, and should be included in the data collection. If not, it should be omitted.

It should be admitted here that it will be impossible to establish objective answers on many of the suggested data items, as they relate to the six parameters; a number of value judgments will be required. Within the constraints imposed by these criteria, the college staff will have to decide if it is willing to commit and expend the resources necessary to collect particular information. Many of these judgments will be complicated by the ability of the data processing system to store and retrieve information, and that may become the deciding factor in the case of several items.

APPENDIX C

NAME_____ Social Security No._____

FEELINGS ABOUT OTHER PEOPLE

Directions: We all have different preferences and personal characteristics. Beside each item, on the right, please indicate how characteristic the statement is of you. (Response key: VM = very much; QB = quite a bit; S = some; NA = not at all).

	VM	QB	S	NA
1. I find it hard to talk with people who hold opinions quite different from my own.	—	—	—	—
2. I find it exciting to meet people quite different from myself.	—	—	—	—
3. I can become so absorbed in the work I'm doing that it doesn't bother me not to have any intimate friends.	—	—	—	—
4. I have found that people have to be pretty much like me if we are going to strike up a friendship.	—	—	—	—
5. There are few times when I compliment people for their talents or jobs they've done.	—	—	—	—
6. I try to get people to do what I want them to do, in one way or another.	—	—	—	—
7. There's no sense in compromising. When people have values I don't like, I just don't care to have much to do with them.	—	—	—	—
8. I enjoy doing little favors for people even if I don't know them well.	—	—	—	—
9. I enjoy myself most when I'm alone, away from other people.	—	—	—	—
10. I can be friendly with people who do things of which I don't approve.	—	—	—	—

RELIGION

Directions: On a 5-point scale mark your degree of agreement or disagreement with the statements listed below.

Agree				Disagree	
5	4	3	2	1	
__	__	__	__	__	1. I believe that there is a life after death.
__	__	__	__	__	2. I believe that there is a Divine plan and purpose for every living person.
__	__	__	__	__	3. There is a Divine God, Creator of the Universe, Who knows everyone's innermost thoughts and feelings, and to Whom we are all accountable.
__	__	__	__	__	4. One should not compromise his beliefs with those whose beliefs are different from theirs.
__	__	__	__	__	5. I know God really exists and I have no doubts about it.
__	__	__	__	__	6. Jesus Christ is the Son of God and I have no doubts about it.
__	__	__	__	__	7. It cannot be known for sure whether or not there is a God.
__	__	__	__	__	8. God only exists in certain people's minds.
__	__	__	__	__	9. A person can have high morals and a sound, acceptable philosophy of life without a religious commitment of some kind.
__	__	__	__	__	10. It doesn't matter to me what church a person belongs to.
__	__	__	__	__	11. I frequently have serious doubts about my religious beliefs.
__	__	__	__	__	12. I believe in the worth of humanity but not in God.
__	__	__	__	__	13. Prayer is an important part of my life.
__	__	__	__	__	14. I have had an experience when I felt the presence of God.
__	__	__	__	__	15. In religious matters I believe I would have to be called a skeptic or an agnostic.
__	__	__	__	__	16. I am confident that I will retain my present religious faith and attitudes.

VARIETY OF INSTRUCTIONAL AND LEARNING EXPERIENCES

Directions: For each of the following instructional or learning experiences, please indicate, by placing a check (X) in the appropriate column, (a) if you have had the experience, (b) if you have not but would like - or not like - to have the experience, and (c) <u>if you have had the experience</u>, the degree to which it was satisfying to you, using the key on the left.

Key: HS = highly satisfied S = satisfied N = neutral D = dissatisfied HD = highly dissatisfied	HAVE HAD THIS EXPERIENCE	WOULD LIKE TO HAVE THIS EXPERIENCE		DEGREE OF SATISFACTION				
	Yes	Yes	No	HS	S	N	D	HD
1. Small class with instructor-led discussions	___	___	___	___	___	___	___	___
2. Large lecture classes	___	___	___	___	___	___	___	___
3. Lecture class with scheduled discussions sections	___	___	___	___	___	___	___	___
4. Video-taped lectures	___	___	___	___	___	___	___	___
5. Team teaching - two or more instructors teaching a course	___	___	___	___	___	___	___	___
6. Group projects, as part of course work	___	___	___	___	___	___	___	___
7. Individual research, as part of course work	___	___	___	___	___	___	___	___
8. Group research, as part of course work	___	___	___	___	___	___	___	___
9. Student-led discussion groups	___	___	___	___	___	___	___	___
10. Courses involving community experiences	___	___	___	___	___	___	___	___
11. Part or all of the course work conducted off-campus	___	___	___	___	___	___	___	___
12. Interdepartmental course (course involving instructors or materials from more than one department)	___	___	___	___	___	___	___	___
13. A laboratory course	___	___	___	___	___	___	___	___
14. Independent study	___	___	___	___	___	___	___	___

STUDENTS WITH OUTSTANDING ACCOMPLISHMENTS AND ADVANCED PLACEMENT INTEREST - ACT
138 STUDENTS ON FILE

	NUMBER OF STUDENTS
OUTSTANDING ACCOMPLISHMENTS IN LEADERSHIP	48
OUTSTANDING ACCOMPLISHMENTS IN MUSIC	82
OUTSTANDING ACCOMPLISHMENTS IN SPEECH	35
OUTSTANDING ACCOMPLISHMENTS IN ART	47
OUTSTANDING ACCOMPLISHMENTS IN WRITING	79
OUTSTANDING ACCOMPLISHMENTS IN SCIENCE	30
OUTSTANDING ACCOMPLISHMENTS IN ATHLETICS	52
INTERESTED IN FRESHMAN HONORS PROGRAMS	49
INTERESTED IN ADVANCED PLACEMENT IN ENGLISH	41
INTERESTED IN ADVANCED PLACEMENT IN MATH	5
INTERESTED IN ADVANCED PLACEMENT IN FOREIGN LANG	10

TEST DATE 10/17/73 AZUSA PACIFIC COLLEGE
STUDENT CENTERED MANAGEMENT INFORMATION SYSTEM

STUDENTS INTERESTED IN EXTRA-CURRICULAR ACTIVITIES - ACT

138 STUDENTS ON FILE

	NUMBER INTERESTED
INTERESTED IN INSTRUMENTAL MUSIC	55
INTERESTED IN VOCAL MUSIC	76
INTERESTED IN WRITING AND PUBLICATIONS	33
INTERESTED IN STUDENT GOVERNMENT	43
INTERESTED IN DEBATES	11
INTERESTED IN CAMPUS RELIGIOUS GROUPS	123
INTERESTED IN CAMPUS POLITICAL GROUPS	14

ACADEMIC STYLE OF LEARNING DURING TYPICAL WEEK - ASB

88 STUDENTS ON FILE

		YES	NO	
1.	I PARTICIPATED IN A CLASS DISCUSSION.	57	31	64.77
2.	I HAD A CONVERSATION, LASTING A HALF-HOUR OR LONGER, WITH ONE OR MORE OF MY PROFESSORS.	21	67	23.86
3.	I DISCUSSED WITH OTHER STUDENTS FOR AN HOUR OR LONGER THE SUBJECT-MATTER OF ONE OR MORE OF MY COURSES.	32	44	42.11
4.	I SPENT AN UNINTERRUPTED 3 HOURS OR LONGER STUDYING FOR ONE OF MY COURSES.	25	51	32.89
5.	I STUDIED AT LEAST FOUR HOURS OR LONGER DURING THE WEEKEND.	38	38	50.00
6.	I READ A BOOK RELATED TO ONE OF MY COURSES BUT THAT WAS NOT AN ASSIGNED READING FOR THE COURSE.	20	56	26.32
7.	I SPENT FIVE OR MORE HOURS WRITING PAPERS.	16	60	21.05
8.	I SPENT SOME TIME JUST BROWSING IN THE LIBRARY OR BOOKSTORE.	57	19	75.00
9.	I PARTICIPATED IN A RESEARCH PROJECT.	25	51	32.89
10.	I SPENT FIVE HOURS OR MORE LOOKING UP REFERENCES IN THE LIBRARY AND TAKING NOTES.	13	63	17.11

STUDENT OBSERVATIONS OF PROFESSORS AND CLASS MANAGEMENT - ASB

96 STUDENTS ON FILE

		T	F	
1.	MOST OF THE PROFESSORS ARE DEDICATED SCHOLARS IN THEIR FIELDS.	70	12	65.37
2.	COURSES, EXAMINATIONS, AND READINGS ARE FREQUENTLY REVISED.	52	17	75.36
3.	PERSONALITY, PULL, AND BLUFF GET STUDENTS THROUGH MANY COURSES.	32	37	46.38
4.	MOST OF THE PROFESSORS ARE VERY THROUGH TEACHERS AND REALLY PROBE INTO THE FUNDAMENTALS OF THEIR SUBJECTS.	61	8	88.41
5.	FACULTY MEMBERS RARELY OR NEVER CALL STUDENTS BY THEIR FIRST NAMES.	2	68	2.86
6.	INSTRUCTORS CLEARLY EXPLAIN THE GOALS AND PURPOSES OF THEIR COURSES.	66	4	94.29
7.	STANDARDS SET BY THE PROFESSORS ARE NOT PARTICULARLY HARD TO ACHIEVE.	49	21	70.00
8.	STUDENTS ALMOST ALWAYS WAIT TO BE CALLED ON BEFORE SPEAKING IN CLASS.	24	47	33.80
9.	CLASS DISCUSSIONS ARE TYPICALLY VIGOROUS AND INTENSE.	41	28	59.42

STUDENT [illegible] INFORMATION SYSTEM

ROLE OF INDIVIDUAL IN SHAPING PERSONAL FUTURE - ASP

235 STUDENTS ON FILE

1 - NOT SURE, 2 - MODERATELY SURE, 3 - VERY

	1	2	3	MEAN RESPS.
A. I HAVE OFTEN FOUND THAT WHAT IS GOING TO HAPPEN WILL HAPPEN.	21	78	44	2.17
B. TRUSTING TO FATE HAS NEVER TURNED OUT AS WELL FOR ME AS MAKING A DECISION TO TAKE A DEFINITE COURSE OF ACTION.	16	92	72	2.31
A. WHAT HAPPENS TO ME IS MY OWN DOING.	44	77	62	2.09
B. SOMETIMES I FEEL THAT I DON'T HAVE ENOUGH CONTROL OVER THE DIRECTION MY LIFE IS TAKING.	40	57	34	1.95
A. WHEN I MAKE PLANS, I AM ALMOST CERTAIN THAT I CAN MAKE THEM WORK.	25	94	58	2.18
B. IT'S NOT ALWAYS WISE TO PLAN TOO FAR AHEAD BECAUSE MANY THINGS ARE DEPENDENT UPON GOOD OR BAD FORTUNES ANYHOW.	32	92	46	2.12
A. IN MY CASE, GETTING WHAT I WANT HAS LITTLE OR NOTHING TO DO WITH LUCK.	24	69	117	2.44
B. MANY TIMES WE MIGHT JUST AS WELL DECIDE WHAT TO DO BY FLIPPING A COIN.	72	22	4	1.30
A. MANY TIMES I FEEL THAT I HAVE LITTLE INFLUENCE OVER THE THINGS THAT HAPPEN TO ME.	41	62	24	1.84
B. IT IS IMPOSSIBLE FOR ME TO BELIEVE THAT CHANCE OR LUCK PLAY AN IMPORTANT ROLE IN MY LIFE.	22	56	106	2.45